

AMENDMENTS TO THE CLAIMS

1. (currently amended) A base transceiver station (BTS) in a mobile communication system, comprising:

a BTS main processing unit for generating a control command to control one BTS;

a multi-rate channel unit for processing an inter-channel communication, each channel having one of a plurality of different data rates, said multi-rate channel unit producing a digital input signal;

a signal transformation unit for transforming and modulating an the digital input signal received from said multi-rate channel unit, wherein said signal transformation unit comprises (i) a digital-signal transformation unit for converting the digital-input signal into a medium-frequency analog signal and (ii) an analog-signal transformation unit that receives the medium-frequency analog signal and produces an analog output signal, wherein the analog-signal transformation unit includes radio frequency (RF) switches to for dynamically selecting one of a plurality of bandpass filters to provide selective forward-link-bandwidth operation, wherein the selected bandpass filter determines a bandwith of the analog output signal; and

a wireless unit connected to said signal transformation unit, said wireless unit for receiving the analog output signal from the signal transformation unit and for wirelessly communication communicating with that analog output signal to a mobile station.

2. (original) The base transceiver station as recited in claim 1, wherein the wireless unit includes three transmitting frequency units and three receiving frequency units.

3. (original) The base transceiver station as recited in claim 1, wherein the signal transformation unit includes an analog up converter, an analog down converter, a digital up converter and a digital down converter.

4. (previously presented) The base transceiver station as recited in claim 1, wherein the multi-rate channel unit includes a transmitting integrated circuit for processing an input signal, a receiving integrated circuit for processing an output signal, a HDLC controller for controlling a HDLC communication and a controlling software block for performing a pre-reserved program and transmitting it to each device.